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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,982	07/29/2003	Larry L. Bradford	ACA6114US2	7140

7590 03/25/2004

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EXAMINER	
SERGENT, RABON A	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No.	Applicant(s)	
	10/628,982	BRADFORD ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-6 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-6 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7/29/03, 10/6/03.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. It is requested that applicants amend the continuing data to reflect the status of parent application, 09/707,505.

2. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Within lines 2 and 3 of claim 1, applicants have stated that flame retardant (a) is adapted for use in a polyurethane foam formulation; however, applicants have failed to reach exactly what constitutes the adaptation or how it is performed.

3. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-6 are drawn to a blend. It is unclear how the polyurethane foam limitation is to be interpreted if the blend is to be incorporated in other polymer systems.

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, within claim 1, it is unclear what is meant by the language, "on a number average basis".

Secondly, within claim 1, the use of "about" to specify an integer value for the repeating unit renders the claims indefinite, because it raises ambiguity with respect to exactly what

compounds are encompassed by the language. Furthermore, it is unclear how to interpret an integer value of about 20.

Thirdly, the use of "can" within claim 1 renders the claims indefinite, because it is unclear if or to what extent the language denoted by "can" is optional.

Lastly, applicants have stated that the amount of (a) in the blend is no less than the amount of (b); however, within claims 4 and 5, "about 50 percent" encompasses values below 50 percent.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 255381 in view of Hardy et al. ('035) and further in view of Sicken et al. ('100).

The primary reference discloses flame retardant blends comprising a polyorganophosphate and a polyhalogenated aromatic flame retardant. See page 3 of the primary reference.

7. Though the primary reference is silent with respect to the specifically claimed oligomeric organophosphates, the position is taken that the claimed oligomeric organophosphates were known flame retardants at the time of invention. This position is supported by the teachings of Hardy et al. In view of the structural similarities between the oligomeric organophosphates of the primary and secondary references, the position is taken that one would have expected them to have comparable flame retarding qualities. Therefore, it would have been obvious to replace the organophosphate of the primary reference with the organophosphate of the secondary reference, so as to arrive at the instant invention. It has been held that it is obvious to utilize a component for its known function. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244. Furthermore, it has been held that it is obvious to substitute one equivalent for another. *In re Ruff*, 118 USPQ 343 (CCPA 1958). Additionally, the teachings within Sicken et al. are considered to render obvious the use of hydroxyl functional oligomeric phosphate flame retardants, since the flame retardant would have been chemically incorporated into the polymer.

8. Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biranowski ('200) in view of Hardy et al. ('035) and further in view of Sicken et al. ('100).

Biranowski discloses flame retardant blends, wherein the blends comprise an oligomeric organophosphonate and a halogenated phosphate ester. See column 3; column 5, lines 44+, and column 6, lines 1-24.

9. Though the primary reference is silent with respect to the specifically claimed oligomeric organophosphates, the position is taken that the claimed oligomeric organophosphates were known flame retardants at the time of invention. This position is supported by the teachings of Hardy et al. In view of the similarities between the oligomeric phosphorus compounds of the primary and secondary references, the position is taken that one would have expected them to have comparable flame retarding qualities. Therefore, it would have been obvious to replace the organophosphonate of the primary reference with the organophosphate of the secondary reference, so as to arrive at the instant invention. It has been held that it is obvious to utilize a component for its known function. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244. Furthermore, it has been held that it is obvious to substitute one equivalent for another. *In re Ruff*, 118 USPQ 343 (CCPA 1958). Additionally, the teachings within Sicken et al. are considered to render obvious the use of hydroxyl functional oligomeric phosphate flame retardants, since the flame retardant would have been chemically incorporated into the polymer.

Any inquiry concerning this communication should be directed to Rabon Sergent at telephone number (571) 272-1079.

RABON SERGENT
PRIMARY EXAMINER

R. Sergent
March 21, 2004